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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,524	07/24/2003	Thomas Joseph Corden	2075-46	8153
23117	7590	08/15/2006		
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
			EXAMINER STAICOVICI, STEFAN	
			ART UNIT 1732	PAPER NUMBER

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/625,524	CORDEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13-23 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-23 and 38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/3/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicants' amendment filed March 30, 2006 has been entered. Claims 13-23 and 38 are pending in the instant application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-21, 23 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Berg (US Patent No. 5,225,129) in view of Kondo *et al.* (US Patent No. 5,593,778).

Van der Berg ('129) teaches the basic claimed process of molding a biodegradable polymeric article including, providing a shaped fibrous preform in a mold, injecting a biodegradable composition in said mold to impregnate said fiber preform and curing said biodegradable composition to form a biodegradable polymer impregnated fiber article (see col. 6, lines 15-50).

Regarding claim 13, although Van der Berg ('129) teaches a biodegradable composition, Van der Berg ('129) does not teach that said composition includes oligomers. Kondo *et al.* ('778) teach a biodegradable composition including oligomers (see col. 26, lines 51-54). Therefore, it would have been obvious for one of ordinary skill in the art to provide the oligomers of Kondo *et*

*al.* ('778) in the biodegradable composition in the process of Van der Berg ('129) because Kondo *et al.* ('778) specifically teach that such oligomers reduce the crystallinity, which in turn increases the degradation rate of the resulting biodegradable polymer, hence providing for an improved biodegradable product.

In regard to claims 14-15, Van der Berg ('129) teaches a fibrous preform that is a fabric (see col. 6, line 32), hence the fibers are oriented in a specific direction that is maintained during the injection process.

Specifically regarding claims 16-20, Van der Berg ('129) teaches a  $\epsilon$ -caprolactone resin (thermoplastic resin) (see col. 2, lines 39-40). Further, Van der Berg ('129) teaches a lactide, glycolide and a caprolactone fiber (aliphatic polyesters), hence teaching a fiber having a different biodegradable rate than that of the injected resin.

Regarding claim 21, Van der Berg ('129) teaches fabrics as a fibrous preform, hence teaching long, continuous fibers.

In regard to claims 23 and 38, Van der Berg ('129) teaches injecting a biodegradable composition in said mold to impregnate said fiber preform and curing said biodegradable composition to form a biodegradable polymer impregnated fiber article (see col. 6, lines 15-50).

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Berg (US Patent No. 5,225,129) in view of Kondo *et al.* (US Patent No. 5,593,778) and in further view of Dunn *et al.* (US Patent No. 4,655,777).

Van der Berg ('129) in view of Kondo *et al.* ('778) teaches the basic claimed process as described above.

Regarding claim 22, although Van der Berg ('129) teaches that a fibrous preform having fibers of any length and thickness (diameter), wherein said preform is in the form of a fabric (see col. 6, lines 30-35), Van der Berg ('129) in view of Kondo *et al.* ('778) do not specifically teach long, continuous fiber having a length to diameter ratio of 100:1 to 10,000:1. Dunn *et al.* ('777) teach a fiber reinforced biodegradable polymer product having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 (see col. 10, lines 55-65). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a fabric having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 as taught by Dunn *et al.* ('777) in the process of Van der Berg ('129) in view of Kondo *et al.* ('778) because Dunn *et al.* ('777) specifically teach that such fibers provide the best reinforcement, hence providing for an improved product and also, because both Dunn *et al.* ('777) and Van der Berg ('129) teach a fiber reinforced biodegradable polymer product, hence suggesting the use of the fibers of Dunn *et al.* ('777) in the process of Van der Berg ('129) in view of Kondo *et al.* ('778).

#### ***Response to Arguments***

5. Applicants' remarks filed March 30, 2006 have been considered.
6. Applicants argue that the art of record does not teach or suggest, either alone or in combination, that "the composition introduced into the tool or mold containing the preform comprises oligomers" (see page 8 of the amendment filed 3/30/2006). However, this argument is drawn to a newly presented claim limitation not previously presented that has been rejected in this Office Action as set forth above.

7. In response to applicant's argument that there is no suggestion to combine the references (see pages 8-9 of the amendment filed 3/30/2006), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Van der Berg ('129) teaches a process for making a fiber reinforced biodegradable polymer product including a fabric having fibers of any length and thickness (diameter) (see col. 6, lines 30-35). Dunn *et al.* ('777) teach a fiber reinforced biodegradable polymer product having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 (see col. 10, lines 55-65). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a fabric having long, continuous fibers of a length to diameter ratio of 100:1 to 1000:1 as taught by Dunn *et al.* ('777) in the process of Van der Berg ('129) in view of Kondo *et al.* ('778) because Dunn *et al.* ('777) specifically teach that such fibers provide the best reinforcement, hence providing for an improved product and also, because both Dunn *et al.* ('777) and Van der Berg ('129) teach a fiber reinforced biodegradable polymer product, hence suggesting the use of the fibers of Dunn *et al.* ('777) in the process of Van der Berg ('129) in view of Kondo *et al.* ('778).

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

  
Primary Examiner 8/11/06

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August 11, 2006